

over a period of two days and constitutes two groups with but one silken covering.

The ovaries work together and each matures three eggs which apparently are laid alternately.

(To be continued)

Descriptions of Seven New Western Ants. (Hymenop.: Formicidae).

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MYRMECOCYSTUS MELLIGER subsp. MIMICUS Whlr. var. **californicus** var. nov.

Worker—Length, 4.5 mm. Differing from the worker of the typical *mimicus* as follows: Entire body hairy and shining. Clypeus, cheeks, mandibles, and legs, except tibiae and tarsi, of a deep reddish brown. Antennae, tibiae, and tarsi much lighter. Mandibular teeth, thorax, and petiole dark brown; gaster black.

Described from numerous workers collected from a single nest by the author at Weed, CALIFORNIA. The *holotype* is in the author's collection and *paratypes* are to be deposited in the collections of the U. S. National Museum and Dr. C. H. Kennedy.

MYRMECOCYSTUS MEXICANUS Wesm. subsp. **idahoensis** subsp. nov.

Worker—Length, 3-6.5 mm. Differing from the worker of the typical *mexicanus* as follows: Head, including mandibles, only slightly longer than broad. Scapes of antennae only sparsely hairy. Mandibles 7-toothed; apical tooth pronouncedly curved; remaining teeth rather indistinct, their tips straight or only slightly curved. Thorax compressed, more robust than that of *mexicanus* or its variety *horti-deorum*. Declivity of epinotum decidedly rounded, base more flattened. Legs comparatively shorter. Petiole convex, its apex rather blunt but without a median impression; apex hairy. Gaster only slightly longer than broad, less elongate than in *mexicanus* or *horti-deorum*.

Hairs of gaster short on dorsum, longer on venter, fewer on antennal funiculi. Surface somewhat shining, thinly pubescent, less hairy than that of *horti-deorum*. Thorax and legs a uniform light tan, head slightly darker; mandibular teeth dark brown to black; gaster fuscous.

Female—Length, 9 mm. Differing from the typical *mexicanus* in the following characters: Head, excluding mandibles, slightly broader than long. Last joint of maxillary palpus about half as long as the penultimate joint. Thorax very broad and robust. Petiole rather blunt. Wings 10 mm. in length, veins light brown, stigma darker; hind wings distinctly iridescent. Gaster longer than thorax.

Head and mandibles, except teeth, reddish brown; mandibular teeth black; thorax shiny yellow-brown, darker than gaster; legs and antennae uniformly dull yellow; venter of gaster and head lighter than dorsum.

Male—Length, 6 mm. Head small, including mandibles, as broad as long. Mandibles with 1 to 3 minute and uneven teeth, in addition to the apical tooth, which is small, pointed, thick, and only slightly curved. Thorax robust, greatly compressed, much broader than head, thicker than gaster. Wings hyaline, discoidal cell large and distinct. Petiole thick, blunt, and unnotched. Gaster strongly elliptical.

Pilosity and pubescence as in worker. Surface shining. Head and thorax, with exception of pronotum, black; pronotum dark reddish brown. Gaster dark brown, slightly lighter ventrally. Femora and tibiae dark ash-grey, tarsi light yellow. Veins and stigmata of wings light brown.

Described from numerous workers, males and females, collected by the writer at Hollister, IDAHO. Additional localities are Rogerson, Indian Cove, Hagerman, and Twin Falls, Idaho. The *holotype*, a worker, from Hollister, is in the author's collection and *paratypes* are to be deposited in the collections of the U. S. National Museum and Dr. C. H. Kennedy.

MYRMECOCYSTUS MELLIGER subsp. SEMIRUFUS Emery var. **kennedyi** var. nov.

Worker—Length, 3-5 mm. Much the same as the worker of the typical *semirufus*, with the following exceptions: Head and gaster more hairy than thorax; pubescence on gaster slight or absent; erect hairs long and rather abundant, uniformly distributed. Surface shining, gaster more so than head and thorax. Head and thorax tan, gaster jet black.

Female—Length, 8.5 mm. Head, excluding mandibles, broader than long. Mandibles 7-toothed; apical tooth pronounced, sharp, only slightly curved. Discoidal cell of wings large and distinct. Petiole rather acute, deeply notched and hairy. Gaster globular; hairs suberect and short; pubescence scant.

Surface, especially of mesonotum, shining. Head and thorax light brown; apical tooth black. Gaster silky black, its sutures and genitalia light brown.

Male—Length, 5 mm. Neck shorter and more robust than in males of related forms. Apical tooth of mandibles short and rather blunt; other teeth lacking. Discoidal cell of wings present but recurrent vein faint; stigma faint.

Surface shining, gaster more so than head or thorax. Head, except antennal funiculi, black; funiculi yellow. Thorax, except mesonotum, and legs, except tarsi, brown; mesonotum black; tarsi dusty yellow; gaster black.

Described from a series of 150 workers, 20 females and 75 males, collected by the writer from small crater nests (about 11 cm. in diameter) at Indian Cove, IDAHO. I name this variety in honor of my friend and teacher, Dr. C. H. Kennedy. The *holotype*, a worker, is retained in the author's collection, and *paratypes* are to be deposited in the collection of the U. S. National Museum and that of Dr. C. H. Kennedy.

MYRMECOCYSTUS MELLIGER subsp. SEMIRUFUS Emery var. **romainei** var. nov.

Worker—Length, 4-5 mm. Same as worker of the typical *semirufus* except that the vertex of the head, antennal funiculi, thorax, petiole, and legs are of a dark reddish brown.

Described from a series of 54 workers taken by Miss Marjorie Romaine, at Cameron, ARIZONA. The *holotype* is in the author's collection, and *paratypes* are to be deposited in the collections of the U. S. National Museum and of Dr. C. H. Kennedy.

DORYMYRMEX PYRAMICUS Roger var. **smithi** var. nov.

Worker—Length, 3.5-5 mm. Larger and more shining than worker of the typical *pyramicus*. Head, legs, and petiole reddish brown; gaster black.

Described from a series of 27 workers collected by the writer at North Platte, NEBRASKA. This variety has been named for Dr. M. R. Smith whose helpful criticisms and suggestions are so much appreciated by the author. The *holotype* is in the author's collection and *paratypes* are to be deposited in the U. S. National Museum.

POGONOMYRMEX BARBATUS F. Smith subsp. **curvispinosus** subsp. nov.

Worker—Length, 7-7.5 mm. Differing from workers of described forms of *barbatus* as follows: Epinotal spines long and rather strongly curved forward. Head and mandibular teeth black; mandibles, antennae, thorax, legs, petiole, and post-petiole light to dark reddish brown; gaster very dark reddish brown, lighter anteriorly and posteriorly; femora infuscated.

Described from a series of 20 workers collected by the author 36 miles south of Prescott, ARIZONA. The ants inhabited a large flat mound of pebbles along U. S. highway 89. The workers were deep within the ground at mid-day so that it was only with extreme difficulty that a series, significant of the subspecies, was obtainable from the rocky soil.

The *holotype* is in the author's collection, and *paratypes* are to be deposited in the collections of the U. S. National Museum and of Dr. C. H. Kennedy.

IRIDOMYRMEX PRUINOSUS Roger var. *testaceus* var. nov.

Worker—Length, 2-2.3. Same as workers of *pruinus* but lighter in color, being testaceous with vertex of the head darker, tip of gaster infuscated, and legs and anterior portion of gaster lemon yellow to testaceous.

Female (deälate)—Length, 5 mm. Dark brown, with testaceous mandibles, cheeks, and legs.

Described from a series of 50 workers and 1 deälated female collected by the author at Twin Falls, Idaho. Other localities: Hagerman, Buhl, and Hollister, IDAHO.

The *holotype*, a worker, from Twin Falls, is in the writer's collection, and *paratypes* are to be deposited in the collections of Dr. C. H. Kennedy and the U. S. National Museum.

Three New Butterfly Races (Lepid.: Nymphalidae, Lycaenidae).

By WILLIAM D. FIELD, Lawrence, Kansas.

NYPHALIS* CALIFORNICA Bdv. new race *herri*.

This is a northern race and it differs from typical *californica* Bdv. in having the ground color of the upper side of both primaries and secondaries more of a burnt orange. Typical *californica* as described by Boisduval is fulvous. The yellow markings of *californica*, which are located on the outer side of all the black spots in the discal and limbal areas, are in this new race less yellowish and more mixed with the ground color. Thus this race appears on the whole darker-colored than does *californica*.

Underneath. On the whole darker than in typical *californica*. This is especially noticeable in the area bordering the outer side

* The generic names used in this article were adopted from Francis Hemming, "The Generic Names Of The Holarctic Butterflies", vol. 1, 1934.